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The Quality of 'Whirling Tide' Clothes as a Creative Expression Media for Fashion Students

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Abstract

This study aims to analyze the quality of the *Whirling Tide* fashion design as a form of creative expression by fashion education students based on six evaluation aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness. This research employed a quantitative approach with a descriptive method. Data were collected from 35 validators consisting of 5 expert validators and 30 trained validators using a Guttman-scale checklist instrument, and then analyzed using percentage analysis. The results show that the expert validators' assessment reached 93.22%, while the trained validators' assessment reached 97.11%, indicating that the *Whirling Tide* fashion design is categorized as very high quality. The aesthetics and uniqueness aspects obtained the highest scores, while the design aspect received the lowest score, although it still remained in the high-quality category. These findings indicate that *Whirling Tide* successfully integrates visual aesthetics, technical construction, cultural inspiration, and creative innovation as a fashion work. Therefore, this study can serve as a reference for evaluating fashion quality in fashion education, particularly in the development of creative works based on cultural and conceptual design.

Keywords: *fashion evaluation, creative expression, garment quality, whirling tide*

INTRODUCTION

Over the past few decades, the development of the fashion industry has demonstrated that product quality has become a crucial element in determining the competitiveness and sustainability of fashion creations (Piippo et al., 2022). Fashion is no longer perceived merely as a basic necessity for body protection, but also as a medium for representing identity, cultural values, creativity, and innovation. This transformation has led to increasing demands for fashion quality, both in terms of visual appearance and technical performance. Therefore, a fashion creation should not only possess an appealing visual appearance but also fulfill product quality aspects, including usability, comfort, and garment durability (Piippo et al., 2022). This condition highlights that every fashion product must be developed through a systematic process that considers the alignment of concepts, material selection, production techniques, and finishing processes to achieve a high-quality product. Consequently, fashion quality serves as an essential indicator reflecting the success of the design process and the value of a product within the fashion industry.

In the field of fashion design education, the creation of fashion products represents an application of students' competencies, as it involves the integration of knowledge, skills, and creativity to produce fashion works (Widhayanti & Wahyuningsih, 2026; Yuliani & Prasetyaningtyas, 2023; Setiawati, 2020). The resulting creations are not only expected to demonstrate design ideas or concepts but must also meet quality standards to achieve adequate aesthetic, functional, and technical values. Fashion quality serves as one of the indicators of students' success in applying design competencies and technical skills, ranging from concept development to the final completion of fashion products (Aprianto et al., 2023; Robiha & Wahyuningsih, 2023). Therefore, the evaluation of fashion quality does not merely function as an assessment of the final product but also serves as a basis

for measuring students' competency achievement and encouraging the development of fashion creations that align with the advancement of the fashion industry.

Fashion quality can be understood as the level of excellence of a product in fulfilling design standards, user needs, and its intended purpose (Piippo et al., 2022). In fashion design, quality is not solely determined by an appealing visual appearance but also by the alignment between the design concept and the final product realized through the production process (Choi, 2022; Widhayanti & Wahyuningsih, 2026). A high-quality fashion creation is able to integrate aesthetic, functional, and technical aspects harmoniously, resulting in a product that possesses artistic value, provides wearing comfort, has proper construction, and effectively represents the concept underlying its creation (Aprianto et al., 2023; Richardson et al., 2024; Wang et al., 2021). Therefore, the assessment of fashion quality needs to be conducted comprehensively, as each component within a fashion creation is interconnected and contributes to the overall product quality. The evaluation of fashion quality is also essential in the development of fashion creations because its results can identify the strengths and weaknesses of a product, while providing a basis for improvement in subsequent design processes.

To obtain a comprehensive understanding of the quality of a fashion creation, assessment indicators that represent all components contributing to product quality are required. In this study, fashion quality is evaluated based on six aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness (Widhayanti & Wahyuningsih, 2026). The design aspect relates to the ability of a fashion creation to apply design concepts, elements, and principles harmoniously. The size aspect refers to the accuracy of measurements and garment proportions in relation to the wearer's body, thereby ensuring comfort during use (Richardson et al., 2024; Wang et al., 2021). The sewing technique aspect reflects the quality of garment construction, neatness of seams, and finishing processes that contribute to determining product quality (Robiha & Wahyuningsih, 2023; Vera et al., 2021). The aesthetic aspect evaluates the harmony of shape, color, texture, proportion, and visual composition that establish the attractiveness of a fashion creation (Aprianto et al., 2023; Kusumadewi et al., 2023). Furthermore, the garment performance aspect is associated with comfort, flexibility, and the ability of a garment to maintain its shape and function when worn (Kim et al., 2023; Kim & Lee, 2024). Meanwhile, the uniqueness aspect reflects creativity, innovation, and distinctive characteristics that differentiate one fashion creation from others. These six aspects are considered capable of providing a comprehensive assessment of fashion quality because they not only emphasize visual outcomes but also encompass process accuracy, functionality, and innovation value within a fashion creation.

Salah satu karya busana yang penting untuk The fashion creation examined in this study is Whirling Tide, which was developed as a medium of creative expression by Fashion Design Education students through the implementation of the Goddess of Nusantara concept. This concept highlights the philosophy of Nusantara women as graceful, resilient, and closely connected with Indonesia's natural richness, which is then represented through the inspiration of dynamic ocean waves (Hidayatunnisa et al., 2024; Purnami et al., 2023). These characteristics are reflected through the use of flowing silhouettes, organza materials, resin applications representing ocean waves, prada batik as a representation of local cultural identity, and a combination of black and gold colors that strengthen the visual character of the garment (Kim & Lee, 2024; Kusumadewi et al., 2023). The integration of cultural concepts, design exploration, and various garment-making techniques makes Whirling Tide not only an artistic creation but also a work that requires high-quality craftsmanship to optimally realize its underlying concept. Therefore, analyzing the quality of the Whirling Tide fashion creation is important to determine the extent to which this work fulfills the aspects of design, size, sewing technique, aesthetics, garment performance, and uniqueness as indicators of fashion quality.

Previous studies have shown that fashion quality is influenced by the integration of design aspects, technical skills, aesthetics, and innovation throughout the creation process (Choi, 2022; Widhayanti & Wahyuningsih, 2026). Research in fashion design education has generally focused on developing students' creativity through the application of design concepts, learning methods, and the utilization of technology to improve competencies in producing fashion creations. Meanwhile, studies in the fashion field have frequently examined product quality from the perspectives of consumer preferences, material quality, wearing comfort, and aesthetic value as factors influencing the acceptance of fashion products (Piippo et al., 2022; Richardson et al., 2024). However, research that specifically evaluates the quality of students' fashion creations as learning outcomes remains relatively limited, particularly studies employing comprehensive assessment indicators based on design, size, sewing technique, aesthetics, garment performance, and uniqueness aspects. This condition indicates

that the evaluation of fashion creation quality still provides opportunities for further development, particularly for conceptual fashion works that incorporate cultural values as sources of design inspiration.

Based on a review of previous studies, research on fashion creations has predominantly focused on the development of creativity, design processes, learning methods, and the utilization of technology in fashion design. In contrast, studies focusing on the analysis of fashion quality as the final outcome of the creative process remain limited, particularly in the context of Fashion Design Education students' creations that incorporate local culture as a source of design inspiration (Widhayanti & Wahyuningsih, 2026; Yuliani & Prasetyaningtyas, 2023). Furthermore, fashion quality evaluation has often not been conducted comprehensively by positioning the aspects of design, size, sewing technique, aesthetics, garment performance, and uniqueness as an integrated framework for assessing the quality of a fashion creation (Widhayanti & Wahyuningsih, 2026). Based on this research gap, this study offers novelty by analyzing the quality of the Whirling Tide fashion creation as a medium of creative expression among Fashion Design Education students through six aspects of fashion quality. This approach is expected to provide a more comprehensive understanding of fashion creation quality and contribute to the development of product evaluation studies within the field of fashion design education.

Based on the previous discussion, this study aims to analyze the quality of the Whirling Tide fashion creation as a medium of creative expression among Fashion Design Education students by referring to six assessment aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness. This analysis is expected to provide a comprehensive overview of fashion creation quality as an outcome of students' competency application in the fashion design creation process. The findings of this study are expected to provide theoretical contributions by expanding the discussion on fashion quality evaluation within fashion design education. In addition, this study is expected to offer practical benefits as an evaluation reference for students, educators, and educational institutions in improving the quality of fashion creations produced. This research may also serve as a reference for future studies examining fashion creation quality as an indicator of students' competency achievement in producing creative, innovative, and high-quality fashion products.

METHOD

This study employed a quantitative approach with a descriptive research design. The quantitative approach was applied because the data were obtained from validator assessments expressed in the form of scores using the Guttman scale, which were subsequently converted into percentages to describe the quality level of the Whirling Tide fashion creation. Meanwhile, the descriptive research design aimed to systematically describe the quality of the fashion creation based on the assessment results of six quality aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness, without applying any treatment or manipulation to the research object. The object of this study was the Whirling Tide fashion creation as a medium of creative expression among Fashion Design Education students at Universitas Negeri Semarang. The research was conducted in the Fashion Design Education Study Program, Faculty of Engineering, Universitas Negeri Semarang. The assessment of fashion quality involved 35 validators selected through purposive sampling. The validators consisted of 5 expert validators, including fashion designers or fashion practitioners, and 30 trained validators, namely Fashion Design Education students who had completed courses in Fashion Design, Fashion Pattern Making, Tailoring, and Haute Couture, enabling them to possess the competencies required to assess fashion quality.

The research instrument used an assessment sheet (checklist) developed based on six aspects of fashion quality, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness. These six aspects were further elaborated into 30 indicators, with each aspect consisting of 5 indicators. Subsequently, each indicator was developed into 6 assessment sub-items, resulting in a total of 180 sub-items within the instrument. The assessment was conducted using the Guttman scale, which provides two response options, namely "Yes" and "No." A "Yes" response was assigned when the fashion creation met the criteria specified in the assessment sub-items, whereas a "No" response was assigned when the fashion creation did not meet the predetermined criteria. Each "Yes" response was given a score of 1, while each "No" response was given a score of 0. Data were collected directly using printed assessment sheets. Each validator observed the Whirling Tide fashion creation

and provided evaluations for all assessment sub-items included in the instrument. The validators' assessment results were then compiled and used as the basis for determining the quality of the fashion creation according to the six evaluation aspects.

Table 1. Research Instrument Specification

Assessment Aspect	Number of Indicators	Number of Assessment Sub-items
Design	5	30
Size	5	30
Sewing Technique	5	30
Aesthetics	5	30
Garment Performance	5	30
Uniqueness	3	30
Total	30	180

The research data were analyzed using descriptive quantitative analysis. The assessment results from each validator were calculated based on the number of “Yes” responses obtained from all 180 assessment sub-items in the instrument. The calculated scores were then converted into percentages using the following formula.

$$P = \frac{\sum \text{score}}{\text{maximum score}} \times 100\%$$

Notes:

P = Garment quality percentage (%)

Σ “Yes” responses = The total number of “Yes” responses given by each validator

180 = The total number of instrument sub-items

The percentage scores from each validator were then averaged to obtain the quality score for each assessment aspect and the overall quality of the garment. The average percentage scores were subsequently interpreted into four quality categories, namely Highly Qualified (85–100%), Qualified (70–84%), Moderately Qualified (55–69%), and Less Qualified (<55%).

Table 2. Garment Quality Categories

Percentage (%)	Category
85-100	Highly Qualified
70-84	Qualified
55-69	Moderately Qualified
<55	Less Qualified

Table 3. Assessment Criteria for Validators

Type of Validator	Number	Criteria
Expert Validators	5	Designers/practitioners with competencies in evaluating garment quality
Trained Validators	30	Fashion Design Education students who have completed courses in Fashion Design, Pattern Making, Tailoring, and Haute Couture

RESULTS AND DISCUSSION

The Whirling Tide garment is a fashion piece developed based on the Goddess of Nusantara concept, which combines the beauty of Indonesian nature, the richness of Nusantara culture, and modern design elements. This concept is realized through the exploration of wave forms as the main inspiration, representing the strength, elegance, and dynamic characteristics of the ocean. The

inspiration is further integrated with the use of batik fabric as an embodiment of Indonesian cultural identity, resulting in a garment design that possesses aesthetic value while conveying cultural meaning and students' creative expression.



Figure 1. Whirling Tide Fashion Moodboard

The moodboard serves as the foundation for developing the visual concept, incorporating various references related to ocean wave characteristics, water textures, metallic material sheen, and elements of Nusantara culture (Choi, 2022; Kusumadewi et al., 2023). The dominant colors of blue, gold, black, and metallic tones were selected to represent an elegant, strong, and modern feminine character. In addition, the inclusion of batik motif references strengthens the local identity, ensuring that the Goddess of Nusantara concept is expressed not only through the garment design but also through the selection of materials and decorative elements that represent Indonesian culture.



Figure 2. Whirling Tide Fashion Design

Based on this concept, the garment design was developed in the form of a long gown with an elegant and dynamic silhouette. The upper part of the garment features an asymmetrical bustier created using draping techniques with metallic satin fabric and reinforced with resin to produce a structured form while providing a futuristic impression (Kim et al., 2023; Kim & Lee, 2024). A high neckline with lace and bead applications enhances the elegant character, while the long black gloves create a dramatic accent that balances the overall appearance. In the skirt section, batik fabric is incorporated as a representation of Nusantara culture and combined with layered liquid organza arrangements that form ocean wave-like structures, creating a dynamic visual rhythm in accordance with the Whirling Tide theme (Hidayatunnisa et al., 2024; Kusumadewi et al., 2023).



Figure 3. Final Product of the Whirling Tide Fashion Design

The realization results demonstrate that the designed concept can be successfully transformed into a garment product. The characteristics of ocean waves are visualized through semi-circular liquid organza arrangements with varying sizes, which are layered and reinforced with wire to maintain the stability of the wave structure (Kim et al., 2023; Wang et al., 2021). The use of a resin bustier creates a firm structure, while the combination of batik fabric, metallic satin, three-dimensional floral applications, and dangling beads produces a harmonious appearance between traditional and modern elements (Aprianto et al., 2023; Vera et al., 2021). Overall, the Whirling Tide garment successfully represents the Goddess of Nusantara concept through the integration of aesthetic values, innovative construction techniques, and Indonesian cultural identity, making it an appropriate object for garment quality evaluation as a medium of students' creative expression.

The quality assessment of the Whirling Tide garment involved 35 validators, consisting of 5 expert validators and 30 trained validators. The expert validators were professional practitioners, including fashion designers, boutique owners, and professional tailors, while the trained validators were students of the Fashion Design Education Study Program who had completed core courses, such as Fashion Design, Pattern Making, Tailoring, and Haute Couture. The assessment was conducted using a checklist instrument developed based on six garment quality aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness. The assessment results from both groups of validators are presented in Table 4.

Table 4. Comparison of Quality Assessment Results from Expert and Trained Validators				
Aspect	Expert Validators (n=5)	Trained Validators (n=30)	Average	Category
Design	84,67	94,89	89,78	Highly Qualified
Size	88,67	96,89	92,78	Highly Qualified
Sewing Technique	90,67	94,56	92,62	Highly Qualified
Aesthetics	98,00	99,33	98,67	Highly Qualified
Garment Performance	97,33	98,67	98,00	Highly Qualified
Uniqueness	100,00	98,33	99,17	Highly Qualified
Average	93,22	97,11	95,17	Highly Qualified

Based on Table 4, the assessment results indicate that both expert and trained validators provided very high evaluations of the quality of the Whirling Tide garment. The average assessment score from the expert validators reached 93.22%, while the average score from the trained validators reached 97.11%. This difference indicates that the trained validators tended to assign higher scores compared to the expert validators. Nevertheless, both groups of validators shared the same perspective that the garment quality had fulfilled the assessment indicators across all evaluated aspects. The uniqueness aspect received the highest score from the expert validators, reaching 100.00%, indicating that the garment possesses distinctive characteristics, innovation, and a strong identity. Meanwhile, the trained validators gave the highest score to the aesthetics aspect, with a percentage of 99.33%, suggesting that the garment has a highly appealing visual appearance through the combination of form, color, texture, and decorative details. On the other hand, the design aspect obtained the lowest scores from both groups of validators, namely 84.67% from the expert validators and 94.89% from the

trained validators. Nevertheless, both scores remained within the categories of qualified to highly qualified according to the predetermined assessment criteria.

Overall, the assessment results indicate that the Whirling Tide garment demonstrates excellent quality as a medium for students' creative expression. The high percentages across all aspects confirm that the Goddess of Nusantara concept was successfully realized through the integration of Nusantara cultural elements, innovative construction techniques, and harmonious aesthetic values (Purnami et al., 2023; Widhayanti & Wahyuningsih, 2026). A further discussion of each garment quality aspect is presented in the following subsections. In the design aspect, the expert validators provided a percentage score of 84.67%, while the trained validators provided a percentage score of 94.89%. These results indicate that the Whirling Tide garment design was categorized as qualified by the expert validators and highly qualified by the trained validators. The difference in percentages suggests that expert validators applied stricter assessment standards regarding the implementation of design principles, whereas trained validators tended to evaluate the overall suitability between the concept and the visual appearance of the garment.

The Whirling Tide garment design was developed based on the Goddess of Nusantara concept, which combines the inspiration of Indonesian natural beauty with Nusantara cultural identity through a modern fashion approach (Hidayatunnisa et al., 2024; Purnami et al., 2023). This concept is realized through a long gown silhouette, an asymmetrical bustier made of metallic satin, batik fabric as a representation of cultural identity, and layered liquid organza arrangements that form ocean wave-like structures. The wave form functions not only as a decorative element but also as a visual focal point that strengthens the garment's character and represents the dynamic movement of water. The combination of traditional and modern elements produces a distinctive design while demonstrating students' creative ideas in developing innovative fashion works (Choi, 2022; Kusumadewi et al., 2023).

The observation results of the final product indicate that the alignment between the design concept and its realization was successfully achieved. The moodboard developed during the design stage was effectively translated into the garment through the selection of gold, black, and champagne tones, the use of a structured bustier, and the application of batik fabric and organza layers that create an ocean wave silhouette. The long gloves, lace details on the neckline, three-dimensional floral applications, and dangling beads further enhance the elegant, dramatic, and modern impression in accordance with the Goddess of Nusantara theme. These findings demonstrate that the design not only emphasizes aesthetic aspects but also effectively conveys the intended message and identity through the fashion creation. The lower percentage score from the expert validators compared to the trained validators indicates that several aspects of the design still have opportunities for improvement. From a professional perspective, garment design is not only assessed based on visual appeal but also on proportion, compositional balance, and the harmony among design elements (Aprianto et al., 2023). Nevertheless, the score of 84.67% demonstrates that the garment has fulfilled most of the design quality indicators. This finding indicates that the proposed concept has been successfully transformed into a product with a strong identity, although several details may still be refined to achieve more optimal quality. The findings of this study are consistent with fashion design theory, which states that the quality of a design is not only determined by its visual beauty but also by the ability of the design to translate concepts into forms that demonstrate unity, balance, proportion, rhythm, and emphasis (Aprianto et al., 2023; Choi, 2022; Kusumadewi et al., 2023). The application of these principles in the Whirling Tide garment can be observed through the integration of the resin bustier, batik motifs, wave-shaped organza layers, and decorative details that complement one another to create a harmonious appearance. Therefore, the design aspect of the Whirling Tide garment can be considered successful in serving as a medium of students' creative expression by transforming Indonesian cultural and natural inspirations into an innovative fashion creation.

Based on the assessment results, the size aspect obtained a percentage score of 88.67% from the expert validators and 96.89% from the trained validators. Both percentages indicate that the size of the Whirling Tide garment is categorized as highly qualified. The high scores demonstrate that the proportions and size conformity of each garment component have fulfilled the predetermined indicators, allowing the garment to provide comfort while maintaining the intended design character. The accuracy of the Whirling Tide garment size is reflected in the suitability of the bustier, skirt, and decorative elements with the model's body proportions. The bustier, constructed using draping techniques on a mannequin, produces a shape that precisely follows the body contours, creating a firm and proportional silhouette (Kim & Lee, 2024; Wang et al., 2021). In addition, the skirt length, the placement of batik fabric, and the arrangement of liquid organza forming the wave structure were

adjusted to the model's body measurements, resulting in a balanced overall composition when worn. This size conformity also supports the representation of the Goddess of Nusantara concept by portraying an elegant, strong, and graceful feminine figure.

The slightly lower percentage score from the expert validators compared to the trained validators indicates that professional assessors placed greater emphasis on the details of proportion and size balance among the garment components. In haute couture garment assessment, size accuracy is not only related to the fit of the garment on the wearer's body but also includes the appropriateness of the scale of each design element to achieve visual balance (Richardson et al., 2024; Wang et al., 2021). Nevertheless, the score of 88.67% indicates that the garment size has fulfilled most of the quality indicators and effectively supports the overall appearance of the garment. The observation results of the final product demonstrate that the application of size in the garment not only considers functional aspects but also supports the formation of its visual character. The layered liquid organza elements are arranged in varying semi-circular sizes to create a dynamic wave effect without disrupting the overall proportion of the garment. The placement of batik fabric on the skirt section is also adjusted to the design composition, ensuring that it does not overpower the main elements or diminish the focus on the bustier and wave structure. Thus, all size-related elements complement one another to produce a harmonious appearance that aligns with the design concept.

The findings of this study confirm that size accuracy plays an important role in determining garment quality. Appropriate sizing not only enhances wearing comfort but also strengthens the overall aesthetics, balance, and harmony of the design (Richardson et al., 2024; Wang et al., 2021). Therefore, the high percentage obtained in the size aspect indicates that the Whirling Tide garment has met quality standards in terms of proportion, form balance, and size suitability as a fashion creation that represents students' creativity. Based on the assessment results, the sewing technique aspect obtained a percentage score of 90.67% from the expert validators and 94.56% from the trained validators. These results indicate that the sewing techniques applied to the Whirling Tide garment are categorized as highly qualified. The high percentages demonstrate that the garment construction, accuracy of joining techniques, finishing neatness, and application of specialized techniques have fulfilled the established quality indicators.

The sewing technique quality of the Whirling Tide garment is reflected not only in the neatness of the stitches but also in the application of construction techniques that are adapted to the design characteristics (Robiha & Wahyuningsih, 2023; Vera et al., 2021). One of the distinctive techniques applied in this garment is the formation of the wave silhouette using liquid organza (Kim et al., 2023; Kim & Lee, 2024). The wave elements were constructed from semi-circular patterns with varying sizes and then arranged in layers to create a visual rhythm resembling ocean waves. After all components were assembled, a stitching line of approximately 0.5 cm was applied as a channel for inserting the wire. The wire functions to maintain the stability of the wave structure, ensuring that the form remains intact and does not easily change when the garment is worn. In this section, an open seam technique without overlocking was applied to maintain a neat finishing appearance and preserve the visual quality of the garment.

In addition to the wave construction, the sewing technique is also demonstrated through the production of the bustier, which combines draping and resin techniques (Aprianto et al., 2023; Kim & Lee, 2024). The process began by covering the mannequin with plastic wrap, followed by shaping the metallic satin fabric directly on the mannequin using the draping technique. After the bustier shape matched the planned design, the fabric was secured with pins to prevent shifting. Subsequently, the surface of the bustier was coated with resin and dried for approximately three days to produce a firm structure. The final stage involved creating holes on both sides of the bustier for attaching loop straps, allowing the bustier to be worn properly without compromising the strength or structural form of the garment. The difference in percentage scores between the expert and trained validators indicates variations in perspectives when assessing sewing technique quality. Expert validators tended to focus more on construction accuracy, detail finishing, and consistency in the application of techniques (Yuliani & Prasetyaningtyas, 2023). In contrast, trained validators placed greater emphasis on the visual quality of the final product. Nevertheless, both groups of validators provided assessments indicating that the sewing techniques applied to the Whirling Tide garment had met good quality standards. Overall, the assessment results demonstrate that the success of the Whirling Tide garment is not only influenced by its appealing design concept but also by the quality of construction techniques that effectively transform the concept into a functional and aesthetic product. The application of wave-forming techniques using wire, the use of a resin-based bustier developed through draping, and neat

sewing finishes demonstrate technical exploration that strengthens the garment's character as a creative work by students (Robiha & Wahyuningsih, 2023; Widhayanti & Wahyuningsih, 2026). Therefore, the sewing technique aspect provides an important contribution to the quality of the Whirling Tide garment as a medium of creative expression.

Based on the assessment results, the aesthetics aspect obtained a percentage score of 98.00% from the expert validators and 99.33% from the trained validators. These percentages indicate that the aesthetics aspect of the Whirling Tide garment is categorized as highly qualified. The high scores from both groups of validators demonstrate that the garment possesses excellent visual appeal through the combination of form, color, texture, materials, and decorative details that complement one another to create a harmonious appearance. The aesthetic value of the Whirling Tide garment is realized through the integration of the Goddess of Nusantara concept with ocean wave inspirations translated into a modern fashion form (Aprianto et al., 2023; Purnami et al., 2023). The dominant wave forms on the lower part of the garment, created through layered liquid organza arrangements, produce a dynamic impression while serving as the visual focal point of the overall design. The glossy effect of the organza material combined with the metallic satin bustier reinforced with resin creates an elegant, modern, and futuristic appearance. The incorporation of batik fabric as a representation of Nusantara culture provides a balance between traditional and contemporary elements, thereby strengthening the garment's visual identity (Kusumadewi et al., 2023; Vera et al., 2021).

In addition to form and materials, the aesthetic value of the garment is further enhanced through the application of various decorative elements. Three-dimensional floral applications, dangling bead details, and lace on the neckline enrich the visual dimensions without compromising the unity of the design (Aprianto et al., 2023; Robiha & Wahyuningsih, 2023). The long black gloves also strengthen the dramatic and elegant character of the garment, allowing the overall appearance to portray an elegant, strong, and modern Nusantara woman in accordance with the proposed concept. The combination of all elements produces a balanced composition and provides an engaging visual experience for observers. The very high assessment percentages from both expert and trained validators indicate that the aesthetic quality of the garment has met the expectations of both groups of assessors. The expert validators considered that the combination of design elements was able to create a harmonious composition, while the trained validators appreciated the visual appeal and uniqueness of the overall garment appearance. This shared perception demonstrates that aesthetic quality does not solely depend on visual beauty but also on the designer's ability to integrate concepts, materials, colors, forms, and decorative details into a cohesive and complete design (Aprianto et al., 2023; Choi, 2022). Overall, the findings of this study indicate that the aesthetics aspect is one of the main strengths of the Whirling Tide garment. The high assessment percentage demonstrates that the garment successfully presents a strong visual character while effectively conveying the Goddess of Nusantara concept. Therefore, the aesthetic quality of the Whirling Tide garment not only enhances the artistic value of the creation but also strengthens its function as a medium of students' creative expression in transforming Indonesian cultural and natural inspirations into an innovative fashion work with high aesthetic value (Hidayatunnisa et al., 2024; Purnami et al., 2023).

Based on the assessment results, the garment performance aspect obtained a percentage score of 97.33% from the expert validators and 98.67% from the trained validators. These results indicate that the performance of the Whirling Tide garment is categorized as highly qualified. The high percentages demonstrate that the garment is able to maintain its structure, present an appealing appearance when worn, and function in accordance with the design concept and intended purpose. The performance of the Whirling Tide garment is reflected in its ability to maintain its structure and silhouette when worn by the model (Kim et al., 2023; Wang et al., 2021). The metallic satin bustier reinforced with resin produces a firm structure that prevents deformation during use. In addition, the application of loop straps on the right and left sides of the bustier helps maintain its position and allows it to adjust to the wearer's body. This construction creates a balance between aesthetic value and functionality, ensuring that the garment remains comfortable to wear without compromising the intended design characteristics (Richardson et al., 2024; Wang et al., 2021).

In the lower part of the garment, the liquid organza arrangement designed to resemble ocean waves is able to maintain its shape through the use of wires inserted into each wave structure. This technique allows the wave silhouette to remain dynamic even when the garment is worn and subjected to movement (Kim et al., 2023; Kim & Lee, 2024). Therefore, the visual effect that characterizes the Whirling Tide garment can be optimally displayed during fashion presentations and documentation of the work. This condition demonstrates that garment performance quality is not only determined by

comfort but also by the garment's ability to maintain its form and visual character in accordance with the design concept. The high assessment scores from both expert and trained validators indicate that the garment demonstrates good performance as a haute couture creation. The expert validators assessed that the garment structure was able to consistently support the intended design form, while the trained validators appreciated the garment's appearance, which remained proportional and visually appealing when worn. This shared perception demonstrates that the performance aspect is one of the important factors supporting the overall quality of the Whirling Tide garment (Piippo et al., 2022).

Overall, the performance of the Whirling Tide garment demonstrates that the creation not only possesses high visual quality but also functions effectively when worn. The garment's ability to maintain its silhouette, support wearer comfort, and consistently present the Goddess of Nusantara concept proves that it has fulfilled the expected performance indicators (Kim et al., 2023; Richardson et al., 2024). Therefore, the performance aspect provides an important contribution to the quality of the Whirling Tide garment as a medium of students' creative expression in producing innovative, functional, and aesthetic fashion works. Based on the assessment results, the uniqueness aspect obtained a percentage score of 100.00% from the expert validators and 98.33% from the trained validators. These results indicate that the uniqueness aspect of the Whirling Tide garment is categorized as highly qualified. The very high percentages demonstrate that the garment possesses distinctive characteristics, innovative elements, and a strong identity that differentiates it from other fashion creations. The high assessments from both groups of validators also indicate that the applied concept, design, construction techniques, and cultural elements successfully produced a work with novelty value and strong appeal.

The main uniqueness of the Whirling Tide garment lies in its successful integration of the Goddess of Nusantara concept with ocean wave-inspired forms into a modern haute couture creation (Purnami et al., 2023; Widhayanti & Wahyuningsih, 2026). This inspiration is realized through layered wave-shaped liquid organza arrangements reinforced with wire, resulting in a dynamic wave silhouette that is able to maintain its structure when worn. This technique not only enhances the aesthetic value but also demonstrates garment construction exploration that supports the visual character in accordance with the design concept. The uniqueness of the garment is also reflected in the use of a metallic satin bustier developed through draping techniques and reinforced with resin (Aprianto et al., 2023; Kim & Lee, 2024). The application of resin produces a firm bustier structure with an asymmetrical form that remains stable, creating a modern and futuristic impression. On the other hand, batik fabric as an element of Nusantara cultural identity strengthens the conceptual meaning of the garment. The combination of modern materials and traditional elements creates a harmonious composition that represents the image of an elegant, strong, and distinctive Nusantara woman (Kusumadewi et al., 2023; Vera et al., 2021). In addition, various decorative details, such as three-dimensional floral applications, dangling beads, lace on the neckline, and long black gloves, further strengthen the visual character of the garment. Each element functions not only as an ornament but also as a component designed to support the unity of the concept, resulting in an elegant, dramatic, and distinctive appearance. The combination of technical innovation, material exploration, and the incorporation of local cultural elements gives Whirling Tide a unique quality that is able to attract attention while conveying creative messages through fashion design (Choi, 2022; Widhayanti & Wahyuningsih, 2026).

The assessment result from the expert validators, which reached 100.00%, indicates that the uniqueness of the garment fulfilled all predetermined indicators. Meanwhile, the trained validators also provided a very high score of 98.33%, demonstrating a shared perception regarding the garment's uniqueness and innovative value. These findings indicate that Whirling Tide not only fulfills technical and aesthetic aspects but also successfully presents a distinctive design character through the integration of natural inspirations, Nusantara culture, and contemporary design approaches. Overall, the uniqueness aspect represents the main strength of the Whirling Tide garment in this study. The successful combination of form exploration, innovative construction techniques, diverse material utilization, and strengthened cultural identity contributes to the garment's excellent quality as a medium of students' creative expression (Widhayanti & Wahyuningsih, 2026; Yuliani & Prasetyaningtyas, 2023). These results demonstrate that the garment not only meets product quality standards but also possesses artistic and conceptual values that represent students' creativity in developing innovative fashion designs rooted in Indonesian culture.

CONCLUSION

This study aims to analyze the quality of the Whirling Tide garment as a medium of students' creative expression based on six assessment aspects, namely design, size, sewing technique, aesthetics, garment performance, and uniqueness. The results indicate that the Whirling Tide garment was categorized as highly qualified based on the assessments from expert and trained validators. The expert validators provided an average assessment score of 93.22%, while the trained validators provided an average score of 97.11%. These results demonstrate that all quality aspects have fulfilled the established assessment indicators. The aesthetics and uniqueness aspects represent the main strengths of the Whirling Tide garment. These strengths are supported by the successful integration of the Goddess of Nusantara concept with ocean wave-inspired forms, the use of batik fabric as a cultural identity element, the application of a resin-based bustier, and the exploration of liquid organza construction to create a wave-like silhouette. In addition to producing high artistic value, the application of these various techniques also results in a garment with good construction quality, proportion, and performance when worn. The findings of this study demonstrate that the Whirling Tide garment not only fulfills the quality aspects of a fashion product but also serves as a medium of students' creative expression in translating Indonesian cultural and natural inspirations into innovative fashion creations. Therefore, this study is expected to provide a reference for the development of fashion design learning, particularly in creating works that integrate creativity, technical innovation, and the preservation of local cultural values.

DECLARATION OF GENERATIVE AI

The authors declare that no generative AI or AI-assisted technologies were used in the writing process of this manuscript.

CONFLICTING INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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